FEB 2 7 2006

32,590

PTO/SB/21 (09-04) Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Inder the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Application Number 10/804640-Conf. #7762 Filing Date TRANSMITTAL March 19, 2004 First Named Inventor **FORM** Matthias WAGNER Art Unit 2883 (to be used for all correspondence after initial filing) **Examiner Name** J. P. Hughes Attorney Docket Number Total Number of Pages in This Submission 0111554.00132US3 ENCLOSURES (Check all that apply) After Allowance Communication Fee Transmittal Form Drawing(s) Appeal Communication to Board of Fee Attached Licensing-related Papers Appeals and Interferences Appeal Communication to TC Amendment/Reply Petition (Appeal Notice, Brief, Reply Brief) Petition to Convert to a After Final **Proprietary Information** Provisional Application Power of Attorney, Revocation Change of Correspondence Address Affidavits/declaration(s) Status Letter Other Enclosure(s) (please **Extension of Time Request** х Terminal Disclaimer Identify below): - Form PTO SB-08 **Express Abandonment Request** Request for Refund - 93 Non-US Patent References - Return Postcard x Information Disclosure Statement CD, Number of CD(s) Certified Copy of Priority Landscape Table on CD Document(s) Reply to Missing Parts/ Remarks Incomplete Application Reply to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Name UTLER PICKERING HALE AND DORR LLP Signature Printed name Eric L. Prahl Date Reg. No.



Docket No.: 0111554.00132US3

(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Matthias WAGNER et al.

Application No.: 10/804640

Confirmation No.: 7762

Filed: March 19, 2004

Art Unit: 2883

For: TUNABLE AND SWITCHABLE MULTIPLE-CAVITY THIN-FILM OPTICAL FILTERS

Examiner: J. P. Hughes

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicants bring to the attention of the Examiner the documents listed on the attached Form SB/08.

This Information Disclosure Statement is being filed prior to the mailing date of a first Office Action on the merits. No fee is required, however, the Commissioner is authorized to charge any fees due with this filing to Deposit Account No. 08-0219.

Applicants request that the Examiner initial and return a copy of the enclosed Form PTO SB/08 with the next communication.

Dated: February 24, 2006

Respectfully submitted,

Eric L. Prahl

Registration No.: 32,590

WILMER CUTLER PICKERING HALE AND

DORR LLP

60 State Street

Boston, Massachusetts 02109

(617) 526-6000

Attorney for Applicant

PTO/SB/08a/b (07-05)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE respond to a collection of information unless it contains a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to

Substitute for form 1449A/B/PTO

## **INFORMATION DISCLOSURE** STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 6

to respond to a conection or in-	o respond to a collection of information unless it contains a valid OMB control number.				
Complete if Known					
Application Number	10/804640-Conf. #7762				
Filing Date	March 19, 2004				
First Named Inventor	Matthias WAGNER				
Art Unit	2883				
Examiner Name	J. P. Hughes				
Attorney Docket Number	0111554.00132US3				

	U.S. PATENT DOCUMENTS				
Examin er Initials*	Cite	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant
initials.	No.1	Number-Kind Code <sup>2</sup> ( if known)	WINI-DD-1111	Applicant of Cited Document	Figures Appear
	AA*	US-4,126,396-A	11-21-1978	Hartmann et al.	
	AB*	US-4,497,544-A	02-05-1985	Mitchell et al.	
	AC*	US-4,680,085-A	07-14-1987		
	AD*	US-4,885,622-A	12-05-1989	Uchiyama et al.	
	AE*	US-4,929,063-A	05-29-1990	Durand et al.	
	AF*	US-5,037,169-A		Chun	
	AG*	US-5,162,239-A	11-10-1992	Winer et al.	
	AH*	US-5,072,120-A	12-10-1991	Siewick	
	AI*	US-5,185,272-A		Makiuchi et al.	
	AJ*	US-5,212,584	05/1993	Chung	
	AK*	US-5,218,422-A		Zoechbauer	
	AL*	US-5,264,375-A	11-23-1993	Bang et al.	
	AM*	US-5,387,974-A	02-07-1995		
	AN*	US-5,408,319-A		Halbout et al.	
	AO*	US-5,490,008-A		Guempelein et al.	
	AP*	US-5,515,460-A	05-07-1996		
	AQ*	US-5,528,071-A		Russell et al.	
	AR*	US-5,539,848-A	07-23-1996		
L	AS*	US-5,599,403-A	02-04-1997	Kariya et al.	
	AT*	US-5,619,059-A	04-08-1997	Li et al.	
L	AU*	US-5,694,498-A	12-02-1997	Manasson et al.	
	AV*	US-5,708,280-A	01-13-1998	Lebby et al.	
	AW*	US-5,742,630-A	04-21-1998		
	AX*	US-5,751,757-A	05-12-1998		
	AY*	US-5,753,928-A	05-19-1998		
	AZ*	US-5,767,712-A	06-16-1998		
	AA1*	US-5,790,255-A	08-04-1998		
	AB1*	US-5,812,582	09-22-1998		
	AC1*	US-5,814,871	09-29-1998	<del> </del>	
	AD1*	US-5,940,008	02/1996	Guempelein et al.	
	AE1*	US-5,942,050-A	08-24-1999	Green et al.	
	AF1*	US-5,953,355-A	09-14-1999		
	AG1*	US-6,018,421-A	01-25-2000	Cushing	
	AH1*	US-6,037,644-A	03-14-2000	Daghighian et al.	
	Al1*	US-6,075,647-A	06-13-2000	Braun et al.	
	AJ1*	US-6,091,504-A	07-18-2000	Walker et al.	
	AK1*	US-6,166,381-A	12-26-2000		
	AL1*	US-6,180,529-B1	01-30-2001	Gu	
	AM1*	US-6,194,721-B1	02-27-2001	Bly	
	AN1*	US-6,265,242-B1	07-24-2001	Komori et al.	
	AO1*	US-6,300,648-B1	10-09-2001	Mei et al.	
	AP1*	US-6,392,233-B1	05-21-2002		
	AQ1*	US-6,447,126-B1	09-10-2002		
	AR1*	US-6,483,862-B1	11-19-2002		
	AS1*	US-6,487,342	11-26-2002	Wu et al.	

Examiner	<del></del>	Date	
Signature		Considered	

Sub	stitute for form 1449A/B	/PTO		Complete if Known		
				Application Number	10/804640-Conf. #7762	
11	NFORMATIC	ON DISC	CLOSURE	Filing Date	March 19, 2004	
S	TATEMENT	BY AF	PPLICANT	First Named Inventor	Matthias WAGNER	
				Art Unit	2883	
	(Use as many	sheets as ne	ecessary)	Examiner Name	J. P. Hughes	
Sheet	2	of	6	Attorney Docket Number	0111554.00132US3	

AU1* US-6,670,599-A1	AT1	* US-6,545,796-B1	04.00.0000	[O
AV1* US-6,737,648-B2 05-18-2004 Fedder et al.  AW1* US-6,768,097-B1 07-27-2004 Viktorovitch et al.  AX1* US-6,985,281-A1 08-14-2003 Wagner et al.  AY1 US-09/813,447  AZ1 US-09/813,449  AA2 US-09/813,450  AB2 US-09/813,455  AD2 US-09/813,455  AD2 US-09/813,462  AF2 US-09/813,462  AF2 US-60/480,294 06-20-2003 Wagner, et al.  AF2 US-60/480,294 06-20-2003 Wagner, et al.  AF2 US-2001/0020680 09-13-2001 Cunningham et al.  AI2* US-2002/0033453 03-21-2002 Sauer et al.  AI2* US-2002/0080493-A1 06-27-2002 Tsai et al.  AK2* US-2002/0087121 05/2003  AM2* US-2002/0145139 10-10-2002 Wagner et al.  AM2* US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/16659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AP2* US-2002/185588 12-12-2002 Wagner et al.  AP2* US-2002/191268-A1 12-19-2002 Seeser et al.			04-08-2003	
AW1* US-6,768,097-B1   07-27-2004   Viktorovitch et al.				
AX1* US-6,985,281-A1 08-14-2003 Wagner et al.  AY1 US-09/813,447  AZ1 US-09/813,449  AA2 US-09/813,450  AB2 US-09/813,455  AD2 US-09/813,456 Wagner, et al.  AE2 US-09/813,456 Wagner, et al.  AE2 US-09/813,462 Wagner, et al.  AF2 US-60/480,294 06-20-2003 Wagner, et al.  AG2 US-60/509,379 10-07-2003 Ma, et al.  AH2* US-2001/0020680 09-13-2001 Cunningham et al.  AI2* US-2002/0033453 03-21-2002 Sauer et al.  AI2* US-2002/0080493-A1 06-27-2002 Tsai et al.  AK2* US-2002/0087121 05/2003 Domash et al.  AL2* US-2002/015652 08-08-2002 Domas et al.  AM2* US-2002/015652 08-08-2002 Domas et al.  AM2* US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/1781832 12-05-2002 Feng et al.  AP2 US-2002/0185588 12-12-2002 Wagner et al.  AP2* US-2002/0185588 12-12-2002 Seeser et al.  AP2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AP2* US-2003/0066967 04-10-2003 Hashimoto et al.				
AY1 US-09/813,447  AZ1 US-09/813,449  AA2 US-09/813,450  AB2 US-09/813,455  AD2 US-09/813,456  AE2 US-09/813,462  AF2 US-60/480,294  AF2 US-60/509,379  10-07-2003  AH2* US-2001/0020680  AH2* US-2002/0033453  AJ2* US-2002/003453  AJ2* US-2002/0080493-A1 06-27-2002  AK2* US-2002/0087121  AK2* US-2002/0087121  AK2* US-2002/0105652  B-08-2002  AK2* US-2002/176659  AM2* US-2002/176659  AM2* US-2002/176659  AM2* US-2002/181832  AC2* US-2002/01815588  12-12-2002  Seeser et al.  AC2* US-2002/0191268-A1 12-19-2002  Seeser et al.  AS2* US-2002/0191268-A1 12-19-2002  Seeser et al.  AC2* US-2003/0066967  AC2* US-2003/0066967  AC4-10-2003  AC4-10-2003  AC5-10-2003  AC6-10-2003  AC6-10-2003  AC7-10-2003  AC7-10-			07-27-2004	Viktorovitch et al.
AZ1 US-09/813,449  AA2 US-09/813,450  AB2 US-09/813,454  AC2 US-09/813,455  AD2 US-09/813,456  AD3 US-09/813,462  AF2 US-60/480,294  AF2 US-60/480,294  AF2 US-60/509,379  AF3 US-2001/0020680  AF42 US-2001/0020680  AF42 US-2001/0020680  AF5 US-2002/0033453  AF5 US-2002/003453  AF7 US-2002/0080493-A1 06-27-2002  AF8 US-2002/0087121  AF8 US-2002/0145139  AF8 US-2002/176659  AF8 US-2003/0066967  AF8 US-2003/0066967  AF8 US-2003/0066967			08-14-2003	Wagner et al.
AA2 US-09/813,450  AB2 US-09/813,454  Wayne et al.  AC2 US-09/813,455  AD2 US-09/813,456  Wagner, et al.  AE2 US-09/813,462  Wagner, et al.  Wagner, et al.  AF2 US-60/480,294  O6-20-2003 Wagner, et al.  AG2 US-60/509,379  10-07-2003 Ma, et al.  AH2* US-2001/0020680  O9-13-2001 Cunningham et al.  AI2* US-2002/0033453  O3-21-2002 Sauer et al.  AI2* US-2002/0080493-A1 O6-27-2002 Tsai et al.  AK2* US-2002/0080493-A1 O5/2003 Domash et al.  AI2* US-2002/0105652  AM2* US-2002/0145139  AM2* US-2002/172239  11-21-2002 Chapman, B.  AO2 US-2002/176659  11-28-2002 Colbourne et al.  AP2 US-2002/181832  12-05-2002 Feng et al.  AR2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967  O4-10-2003 Hashimoto et al.				
AB2 US-09/813,454 Wayne et al.  AC2 US-09/813,455 Wagner, et al.  AE2 US-09/813,462 Wagner, et al.  AF2 US-60/480,294 06-20-2003 Wagner, et al.  AG2 US-60/509,379 10-07-2003 Ma, et al.  AH2* US-2001/0020680 09-13-2001 Cunningham et al.  AI2* US-2002/0033453 03-21-2002 Sauer et al.  AI2* US-2002/0080493-A1 06-27-2002 Tsai et al.  AI2* US-2002/0087121 05/2003 Domash et al.  AI2* US-2002/0105652 08-08-2002 Domas et al.  AM2* US-2002/0145139 10-10-2002 Wagner et al.  AN2 US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/176659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AQ2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AR2* US-2003/0066967 04-10-2003 Hashimoto et al.				
AC2 US-09/813,455  AD2 US-09/813,456 Wagner, et al.  AE2 US-60/480,294 06-20-2003 Wagner, et al.  AG2 US-60/509,379 10-07-2003 Ma, et al.  AH2* US-2001/0020680 09-13-2001 Cunningham et al.  AI2* US-2002/0033453 03-21-2002 Sauer et al.  AJ2* US-2002/0080493-A1 06-27-2002 Tsai et al.  AK2* US-2002/0087121 05/2003 Domash et al.  AL2* US-2002/0105652 08-08-2002 Domas et al.  AM2* US-2002/0145139 10-10-2002 Wagner et al.  AM2* US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/176659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AQ2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AR2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967 04-10-2003 Hashimoto et al.		0.0000000000000000000000000000000000000		
AD2				Wayne et al.
AE2 US-09/813,462 Wagner, et al.  AF2 US-60/480,294 06-20-2003 Wagner, et al.  AG2 US-60/509,379 10-07-2003 Ma, et al.  AH2* US-2001/0020680 09-13-2001 Cunningham et al.  AI2* US-2002/0033453 03-21-2002 Sauer et al.  AJ2* US-2002/0080493-A1 06-27-2002 Tsai et al.  AK2* US-2002/0087121 05/2003 Domash et al.  AL2* US-2002/0105652 08-08-2002 Domas et al.  AM2* US-2002/0145139 10-10-2002 Wagner et al.  AN2 US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/176659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AQ2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AC			
AE2       US-09/813,462       Wagner, et al.         AF2       US-60/480,294       06-20-2003       Wagner, et al.         AG2       US-60/509,379       10-07-2003       Ma, et al.         AH2*       US-2001/0020680       09-13-2001       Cunningham et al.         AI2*       US-2002/0033453       03-21-2002       Sauer et al.         AJ2*       US-2002/0080493-A1       06-27-2002       Tsai et al.         AK2*       US-2002/0087121       05/2003       Domash et al.         AL2*       US-2002/0105652       08-08-2002       Domas et al.         AM2*       US-2002/0145139       10-10-2002       Wagner et al.         AN2       US-2002/172239       11-21-2002       Chapman, B.         AO2       US-2002/176659       11-28-2002       Colbourne et al.         AP2       US-2002/181832       12-05-2002       Feng et al.         AQ2*       US-2002/0191268-A1       12-19-2002       Seeser et al.         AS2*       US-2003/0066967       04-10-2003       Hashimoto et al.	AD	2 US-09/813,456		Wagner, et al.
AF2 US-60/480,294 06-20-2003 Wagner, et al.  AG2 US-60/509,379 10-07-2003 Ma, et al.  AH2* US-2001/0020680 09-13-2001 Cunningham et al.  AI2* US-2002/0033453 03-21-2002 Sauer et al.  AJ2* US-2002/0080493-A1 06-27-2002 Tsai et al.  AK2* US-2002/0087121 05/2003 Domash et al.  AL2* US-2002/0105652 08-08-2002 Domas et al.  AM2* US-2002/0145139 10-10-2002 Wagner et al.  AN2 US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/176659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AQ2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AE2	2 US-09/813,462		
AG2       US-60/509,379       10-07-2003       Ma, et al.         AH2*       US-2001/0020680       09-13-2001       Cunningham et al.         AI2*       US-2002/0033453       03-21-2002       Sauer et al.         AJ2*       US-2002/0080493-A1       06-27-2002       Tsai et al.         AK2*       US-2002/0087121       05/2003       Domash et al.         AL2*       US-2002/0105652       08-08-2002       Domas et al.         AM2*       US-2002/0145139       10-10-2002       Wagner et al.         AN2       US-2002/172239       11-21-2002       Chapman, B.         AO2       US-2002/176659       11-28-2002       Colbourne et al.         AP2       US-2002/181832       12-05-2002       Feng et al.         AQ2*       US-2002/0191268-A1       12-19-2002       Seeser et al.         AS2*       US-2003/0066967       04-10-2003       Hashimoto et al.	AF2	2 US-60/480,294	06-20-2003	
Al2* US-2002/0033453   03-21-2002   Sauer et al.	AG	2 US-60/509,379	10-07-2003	
Al2*       US-2002/0033453       03-21-2002       Sauer et al.         AJ2*       US-2002/0080493-A1       06-27-2002       Tsai et al.         AK2*       US-2002/0087121       05/2003       Domash et al.         AL2*       US-2002/0105652       08-08-2002       Domas et al.         AM2*       US-2002/0145139       10-10-2002       Wagner et al.         AN2       US-2002/172239       11-21-2002       Chapman, B.         AO2       US-2002/176659       11-28-2002       Colbourne et al.         AP2       US-2002/181832       12-05-2002       Feng et al.         AQ2*       US-2002/0185588       12-12-2002       Wagner et al.         AR2*       US-2002/0191268-A1       12-19-2002       Seeser et al.         AS2*       US-2003/0066967       04-10-2003       Hashimoto et al.	AH2	2* US-2001/0020680	09-13-2001	Cunningham et al.
AK2*       US-2002/0087121       05/2003       Domash et al.         AL2*       US-2002/0105652       08-08-2002       Domas et al.         AM2*       US-2002/0145139       10-10-2002       Wagner et al.         AN2       US-2002/172239       11-21-2002       Chapman, B.         AO2       US-2002/176659       11-28-2002       Colbourne et al.         AP2       US-2002/181832       12-05-2002       Feng et al.         AQ2*       US-2002/0185588       12-12-2002       Wagner et al.         AP2*       US-2002/0191268-A1       12-19-2002       Seeser et al.         AS2*       US-2003/0066967       04-10-2003       Hashimoto et al.	Al2		03-21-2002	
AK2*       US-2002/0087121       05/2003       Domash et al.         AL2*       US-2002/0105652       08-08-2002       Domas et al.         AM2*       US-2002/0145139       10-10-2002       Wagner et al.         AN2       US-2002/172239       11-21-2002       Chapman, B.         AO2       US-2002/176659       11-28-2002       Colbourne et al.         AP2       US-2002/181832       12-05-2002       Feng et al.         AQ2*       US-2002/0185588       12-12-2002       Wagner et al.         AP2*       US-2002/0191268-A1       12-19-2002       Seeser et al.         AS2*       US-2003/0066967       04-10-2003       Hashimoto et al.	AJ2	* US-2002/0080493-A1	06-27-2002	Tsai et al.
AM2* US-2002/0145139 10-10-2002 Wagner et al.  AN2 US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/176659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AQ2* US-2002/0185588 12-12-2002 Wagner et al.  AP2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AK2	2* US-2002/0087121	05/2003	Domash et al.
AN2 US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/176659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AQ2* US-2002/0185588 12-12-2002 Wagner et al.  AP2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AL2	* US-2002/0105652	08-08-2002	Domas et al.
AN2 US-2002/172239 11-21-2002 Chapman, B.  AO2 US-2002/176659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AO2* US-2002/0185588 12-12-2002 Wagner et al.  AP2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AM	2* US-2002/0145139	10-10-2002	Wagner et al.
AO2 US-2002/176659 11-28-2002 Colbourne et al.  AP2 US-2002/181832 12-05-2002 Feng et al.  AC2* US-2002/0185588 12-12-2002 Wagner et al.  AR2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AN	2 US-2002/172239		
AQ2* US-2002/0185588 12-12-2002 Wagner et al.  AR2* US-2002/0191268-A1 12-19-2002 Seeser et al.  AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AO	2 US-2002/176659	11-28-2002	
AP2* US-2002/0191268-A1 12-19-2002 Seeser et al. AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AP2	2 US-2002/181832	12-05-2002	Feng et al.
AR2* US-2002/0191268-A1 12-19-2002 Seeser et al. AS2* US-2003/0066967 04-10-2003 Hashimoto et al.	AQ2	2* US-2002/0185588	12-12-2002	Wagner et al.
	AR2	2* US-2002/0191268-A1	12-19-2002	
	AS2	2* US-2003/0066967	04-10-2003	Hashimoto et al.
[ A12"   U5-2003/00/2009   U4-17-2003   Domash et al	AT2		04-17-2003	
AU2* US-2003/0087121-A1 05-08-2003 Domash et al.	AU2	2* US-2003/0087121-A1		
AV2* US-2003/0132386 07-17-2003 Carr et al.	AV2	2* US-2003/0132386	07-17-2003	Carr et al.
AW2* US-2004/0104334 06-03-2004 Carr	AW			
AX2* US-2003/0141453 07-31-2003 Reed, et al.	AX2	2* US-2003/0141453		Reed, et al.

	FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Foreign Patent Document  Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
	ВА	EP-0125390-A1	11-21-1984	Schaumberg Hanno	<u> </u>	$\vdash$	
	BB	EP-0139487	05-02-1985	Exxon Research			
	BC	EP-0178148-A2	04-16-1986	Xerox Corporation		Г	
	BD	EP-0518228	12-16-1992	Hartmann & Braun			
	BE	EP-0559347	09-08-1993	AT&T Corp.		Г	
	BF	EP-0773640	05-14-1997	AT&T		Г	
	BG	EP-0901170	03-10-1999	Sumitomo Electric Industries		Г	
	ВН	EP-1055959	11-29-2000	NEC Corporation			
	BI	EP-0859413	08-19-1998	Mitsubishi		Г	
	BJ	EP-0860885	08-26-1998	Canon Kabushiki Kaisha			
	BK	EP-0883194-A1	12-09-1998	Univ Roma			
	BL	EP-0899836-A1	03-03-1999	Xerox Corporation			
	ВМ	EP-0899835-A1	03-03-1999	Xerox Corporation			

Examiner Date	
Signature Considered	1

Sut	ostitute for form 1449A/B/PT	o			Complete if Known
				Application Number	10/804640-Conf. #7762
11	<b>NFORMATION</b>	1 DI	SCLOSURE	Filing Date	March 19, 2004
S	TATEMENT B	3Y /	APPLICANT	First Named Inventor	Matthias WAGNER
				Art Unit	2883
	(Use as many sh	eets as	s necessary)	Examiner Name	J. P. Hughes
Sheet	3	of	6	Attorney Docket Number	0111554.00132US3

BN	DE-4424717	01-19-1996	Siemens Aktiengesellschaft		
ВО	DE-196 35 583	03-05-1998	Siemens AG		1
BP	JP-07168040	07-04-1995	Nippon Steel Corp.		Ò
BQ	JP-08250551		Mitsubishi Elec. Corp.		
BR	JP-60210826	10-23-1985	Mitsubishi Elec. Corp.		
BS	WO-89/03593	04-20-1989	Stemcor Corp.		
BT	WO-99/30394	06-17-1999	Coherent, Inc.		
BU	WO-00/13350	03-09-2000	E-TEK Electrophotonics Solutions Corporation		
BV	WO-00/22479	04-20-2000	Siemens Aktiengesellschaft	-	
BW	WO-00/23833	04-27-2000	Coretek Inc.		
BX	WO-01/16637	03-08-2001	Epitaxx Inc.		
BY	WO-01/67646	09-13-2001	Flanders et al		
BZ	WO-01/73850	10-04-2001	Aegis Semiconductor Inc.		
BA1	WO-02/50528	06-27-2002	Baltes et al.		
BB1	WO-02/057180	07-25-2002	Honeywell International, Inc.		
BC1	WO-02/103441	12-27-2002	Aegis Semiconductor Inc.		
BD1	WO-03/046630	06-05-2003	Aegis Semiconductor Inc.		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \*CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. ¹ Applicant's unique citation designation number (optional). \*3 Eve Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. \*3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \* For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. \*Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	CA	AUGUSTINE, B.H. et al. "Thermal-optical switching of a silicon based interference filter" J. Appl. Phys. (15 February 1994): 75(04) 1875-1877	
	СВ	BAUMEISTER, P., "Simulation of a rugate filter via a stepped-index dielectric multilayer", Applied Optics, Vol. 25, No. 16, pp. 2644-2645, 1986	
	CC	BRUEL et al., "Smart-cut: A New Silicon on Insulator Material Technology based on Hydrogen Implantation and Wafer Bonding", <i>Jpn. J. Appl. Phys.</i> , Vol. 36, pp. 1636-1641, 1997	
	CD	CARBUNESCU, E. "Non linear optical effects in hydrogenated amorphous silicon" Optical Engineering, Vol. 35, No. 05, pp. 1322-1324, May 1996	
	CE	CHOI et al. "Design and Control of a Thermal Stabilizing System for a MEMS Optomechanical Uncooled Infrared Imaging Camera", Sensors and Actuators, Vol. 203, No. A104, pp. 132-142	
	CF	COCURULLO, G. et al. "Amorphous silicon based waveguides and light modulators for silicon low-cost photonic integrated circuits." MRS Fall Meeting Boston (December 1997)	
	CG	COCORULLO, G. et al. "Amorphous silicon waveguides and light modulators for integrated photonics realized by low-temperature plasma-enhanced chemical-vapor deposition." Optics Letters, Vol. 21, No. 4, pp. 2002-2004, 15 December 1996	
	СН	COCORULLO, G. et al. "Amorphous silicon-based guided-wave passive and active devices for silicon integrated optoelectronics." <i>IEEE Jornal of Selected Topics in Quantum Electronics</i> , Vol. 4, No. 6, pp. 997-1002, Nov/Dec 1998	
	CI	COCORULLO, G. et al. "Amorphous silicon waveguides and interferometers for low-cost silicon optoelectronics." SPIE, Vol. 3278, pp. 286-292, 1998	
	CJ	COCORULLO, G. et al., "Measurement of the thermo-optic coefficient of a-Si:H at the	
Examiner Signature		Date Considered	

Sut	bstitute for form 1449A/B/PT	·o		Complete if Known		
				Application Number	10/804640-Conf. #7762	
	<b>NFORMATION</b>	1 DI	SCLOSURE	Filing Date	March 19, 2004	
l s	TATEMENT I	3Y /	APPLICANT	First Named Inventor	Matthias WAGNER	
				Art Unit	2883	
	(Use as many sh	eets a	s necessary)	Examiner Name	J. P. Hughes	
Sheet	4	of	6	Attorney Docket Number	0111554.00132US3	

	wavelength of 1500 nm from room temperature to 200°C", <i>Journal of Non-Crystalline Solids</i> , pp. 310-313, 2002
СК	COCORULLO et al., "Fast Infrared Light Modulation in a-Si:H Micro-devices", J. Non- Crystalline Sol., Vol. 266, pp. 1247-1251, 2000
CL	COCORULLO, G. et al. "Silicon thermooptical micromodulator with 700-KHz-3dB bandwidth."
	IEEE Photonics Technology Letters , Vol. 7, No. 4, pp. 363-365, April 1995
СМ	COPPOLA, G. et al. "Simulation and analysis of a high-efficiency silicon optoelectronic modulator based on a Bragg mirror." Society of Photo-optical Instrumentation Engineers (June 2001): 40(6) 1076-1081
 CN	DELLA CORTE, F. et al., "Study of the thermo-optic effect in hydrogenated amorphous silicon and hydrogenated amorphous silicon carbide between 300 and 500 K at 1.55 μm", <i>Applied Physics Letters</i> , Vol. 79, No. 2, pp. 168-170, 9 July 2001
СО	DESALVO et al., "Advanced Components and Subsystem Solutions for 40 gb/s Transmission", <i>Journal of Lightwave Technology, Vol.</i> 20, No. 12, pp. 2175-2177, 2002
СР	DOMASH et al., "Broadly Tunable Thin Film Interference Coatings: Active Thin Film for Telecom Applications", <i>Proceedings of SPIE</i> , Vol. 4989, pp. 161-167, June 2003
 CQ	DOMASH, L. et al., "Switchable thin film add/drop filter", 2003 Optical Society of America, PD35-1-PD25-3, 2003
CR	DOMASH, L. et al., "Tunable thin-film filters based on thermo-optic semiconductor films", Applications of Photonic Technology 5, Proceedings of SPIE, Vol. 4833, pp. 685-695, 2002
CS	DOMASH et al., "Tunable and Switchable Multiple-Cavity Thin Film Filters", Journal of Lightwave Technology, Vol. 22, No. 1, pp. 126-135, 2004
СТ	EICKER, U. et al. "Optical bistability in amorphous Si-C alloys and amorphous alloy interference filters." <i>Optical Society of America</i> , Vol. 8, No. 3, pp. 614-617, 1991
CU	FERNANDES, M. et al., "VIS/NIR detector based on μc-Si:H p-l-n structures", <i>Thin Solid Films, Elsevier Science, S.A.</i> , Vol. 364, No. 1-2, pp. 204-205, March 2000
CV	GHOSH, G., "Temperature dispersion of refractive indices in crystalline and amorphous silison", Appl. Phys. Lett. 66, Vol. 26, 26 June 1995
 CW	GNAUCK et al., "Optical Equalization of Fiber Chromatic Dispersion in a 5-GB/S Transmission System", IEEE Photonics Technology Letters, Vol. 2, No. 8, pp. 585-587, 1 August 1990
сх	HOHLFELD et al., "A Thermally Tunable Silicon-based Optical Filter", Sensors and Actuators, Vol. 103, No. 1-2, pp. 93-99, 15 January 2003
CY	HOHLFELD et al., "Thermally Tunable Optical Filter Array", Proceedings of SPIE - Optical Devices for Fiber Communication IV, Vol. 4989, pp. 143-154, June 2003
CZ	IODICE, M. et al. "Simple and low-cost technique for wavelength division multiplexing channel monitoring." Society of Photo-Optical Instrumentation Engineers, Vol. 69, No. 6, pp. 1704-1711, June 2000
CA1	JABLONSKI, M. et al., "Entirely thin-film allpass coupled-cavity filters in a parallel configuration for adjustable dispersion-slope compensation", <i>IEEE Photonics Technology Letters</i> , Vol. 13, No. 11, November 2001
CB1	JDSU COADM Configurable Optical Add Drop Multiplexers, http://www.jdsu.com/site/images/products/pdf/coadm_apnote, pdf
CC1	KAJAVA, T. et al. "Tunable fabry-perot micro-filters for telecommunication system diagnostics." Tech Dig. Conf. Lasers and Electro-Optics Cleo/Europe, p. 324, 1998
CD1	KOBAYASHI, Y. et al., "Improvement on Coupling Efficiency for Passive Alignment of Stacked Mult-Fiber Tapes to a Vertical-Cavity Surface-Emitting Laser Array", Extend Abstracts of the 1996 International Conference on Solid State Devices and Materials, pp. 655-657, 1996
CE1	LEQUIME, M. et al., "Toward tunable thin-film filters for wavelength division multiplexing applications", Applied Optics, Vol. 41, No. 16, pp. 3277-3284, 1 June 2002
CF1	LI, H., "Refractive Index of Silicon and Germanium and its Wavelength and Temperature

Examiner	Date	
Signature	 Considered	

Substitute for form 1449A/B/PTO				Complete if Known		
				Application Number	10/804640-Conf. #7762	
l IN	NFORMATION	1 DI	SCLOSURE	Filing Date	March 19, 2004	
l s	STATEMENT BY APPLICANT			First Named Inventor	Matthias WAGNER	
				Art Unit	2883	
	(Use as many sh	eets as	s necessary)	Examiner Name	J. P. Hughes	
Sheet	5	of	6	Attorney Docket Number	0111554.00132US3	

		Derivatives", J. Phs. and Chem. Ref. Data., Vol. 9, p. 561, 1980
	CG1	LUNARDI, L. et al., "Tunable dispersion compensation at 40-Gb/s using a multicavity etalon
	CGI	
		all-pass filter with NRZ, RZ and CS-RZ modulcation", Journal of Lightwave Technology, Vol.
	-	20, No. 12, December 2002
	CH1	MADSEN et al., "A Multi-Channel Dispersion Slope Compensating Optical Allpass Filter",
		Optical Fiber Communication Conference, Technical Digest Postconference edition, Vol. 2 of
	4	4, pp. WF5-1, 7 March 2000
	Cl1	MADSEN et al., "A Tunable Dispersion Compensating MEMS All-Pass Filter", IEEE Photonics
		Technology Letters, Vol. 12, No. 6, pp. 651-653, 2000
	CJ1	MANDURAH, M.M., "Dopant Seregation in Polycrystalline Silicon", J. App. Phys., Vol. 51, pp.
		5755-5763, 1980
	CK1	MARTINU, L., "Plasma deposition of optical films and coatings: A review", J. Vac. Sci.
		Technol., Vol. 18, No. 6, pp. 2619-2645, Nov./Dec. 2000
	CL1	MOSS et al., "Multichannel Tunable Dispersion Compensation Using all-pass Multicavity
		Etalons", Optical Society of America, 2002
	CM1	NIEMI, T. et al. "Tunable silicon etalon for simultaneous spectral filtering and wavelength
	0	monitoring of a DWDM transmitter." <i>IEEE Photoconics Technology Letters</i> (January 2001):
	1	13(1) 58-60
	CN1	ODEN et al., "Uncooled Thermal Imaging Using a Piezoresitive Microcantilever", Health
	CIVI	
	001	Science Research Division, Oak Ridge National Laboratory, (3 pages), 1996
	CO1	PANGAL, K. et al., "Hydrogen plasma enhanced crystallization of hydrogenated amorphous
		silicon films", Journal of Applied Physics, Vol. 85, No. 3, pp. 1900-1906, 1 February 1999
	CP1	PARMENTIER, R. et al., "Towards tunable optical filters", Technical Digest, OSA Topical
		Meeting Optical Interference Coatings, Paper WB1, 15 July 2001
	CQ1	PARMENTIER, R. et al., "Substrate-strain-induced tunability of dense wavelength-division
	<u> </u>	multiplexing thin-film filters", Optic Letters, Vol. 28, No. 9, pp. 728-730, 1 May 2003
	CR1	PAYNE et al., "Effects of Chlorine on Dopant Activation in α-Si:H", Appl. Phys. Lett., Vol. 76,
		No. 20, p. 2949, 2000
	CS1	POLYAKOV et al., "Processability and Electrical Characteristics of Glass Substrates for RF
		Wafer-Level Chip-Scale Packages", 2003 Proceedings 53rd, Electronic Components and
		Technology Conference, Vol. CONF. 53, 27 May 2003
	CT1	RIANT et al., "Chirped Fiber Bragg Gratings for WDM Chromatic Dispersion Compensation in
		Multispan 10-Gb/s Transmission", IEEE Journal of Selected Topics in Quantum Electronics,
		Vol. 5, No. 5., pp. 1312-1323, 1999
	CU1	SCHMIDT, M. A., "Wafer-to-wafer Bonding for Microstructure Formation", Proc. IEEE, Vol. 86,
		pp. 1575-1585, 1998
	CV1	SONG et al., "Fabrication of Single Crystalline Silicon on Glass by Smart-Cut Technique",
		Chinese Physics Letters, Vol. 20, No. 1, pp. 108-110, January 2003
	CW1	TAKAGI et al., "High-rate Growth of Stable α-Si:H", <i>Mat. Res. Soc. Symp. Proc.</i> , Vol. 557, p.
		105, 1999
	CX1	TAKASHASHI, H., "Temperature stability of thin-film narrow-bandpass filters produced by ion-
	OXI	assisted deposition", Applied Optics, Vol. 34, No. 4, pp. 667-675, 1 February 1995
	CY1	TSAI, RY. et al., "Amorphous silicon and amorphous silicon nitride films prepared by a plasma-
	011	
		enhanced chemical vapor deposition process as optical coating materials", <i>Applied Optics</i> ,
		Vol. 32, No. 28, pp. 5561-5566, 1 October 1993
	CZ1	WILLNER, A., "Chromatic dispersion and polarization-mode dispersion", <i>OPN TRENDS</i> , pp.
	10:0	S-16-S-21, March 2002
l	CA2	WIPIEJEWSKI et al., "Vertical-Cavity Surface-Emitting Laser Diodes for Short Distance Optical
l	1	Fiber Networks", Proceeding of the Electronic Components and Technology Confernce,
L		Washington DC, IEEE, Vol. 44, pp. 330-334, 1994

Examiner	 	Date		
Signature		Considered	1	

Substitute for form 1449A/B/PTO				Complete if Known		
				Application Number	10/804640-Conf. #7762	
INF	ORMATIO	N DI	SCLOSURE	Filing Date	March 19, 2004	
STATEMENT BY APPLICANT			APPLICANT	First Named Inventor	Matthias WAGNER	
(Use as many sheets as necessary)				Art Unit	2883	
				Examiner Name	J. P. Hughes	
heet	6	of	6	Attomey Docket Number	0111554.00132US3	

		YANG et al., "Amorphous Silicon and SiGe Alloy Solar Cells Deposited by VHF", <i>Mat. Res. Soc. Symp.</i> , Vol. 664, p. A11.3.1, 2001	
C	CC2	ZHAO et al., "Optomechanical Uncooled Infrared Imaging System: Design, Microfabrication, and Performance", <i>Journal of Microelectromechanical Systems</i> , Vol. 11, No. 2, pp. 136-146, 2002	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/92 (09-04)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Application No. (if known): 10/804640

Attorney Docket No.: 0111554.00132US3

## Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

on February 24, 2006
Date

Signature

Janice Roussel

Typed or printed name of person signing Certificate

(617) 526-6000

Registration Number, if applicable

Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

Information Disclosure Statement PTO Form SB-08 93 Non-U.S. References Return Postcard Transmittal (1 page)